AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)

2. (Currently Amended) A nonvolatile variable resistor comprising:

a first electrode and a second electrode facing each other and formed on a substrate; a nonvolatile variable resistance body formed between the first electrode and the second electrode, wherein the first electrode having a first electrode major dimension and the second electrode having a second electrode major dimension, and wherein the first electrode major dimension and the second electrode major dimension extend in a direction perpendicular to a surface of the substrate and the first electrode major dimension and the second electrode major dimension face each other in a direction parallel to ~~a~~the surface of the substrate, wherein the nonvolatile variable resistance body is formed on an outer surface of the first electrode, and the second electrode is formed on an outer surface of the nonvolatile variable resistance body.

3. (Original) A nonvolatile variable resistor according to claim 2, wherein the first electrode is columnar or prismatic.

4. (Original) A nonvolatile variable resistor according to claim 3, wherein the nonvolatile variable resistance body is made of a manganese oxide of a perovskite structure.

5. (Previously Presented) A nonvolatile variable resistor according to claim 4, wherein the manganese oxide is any of $Pr_{(1-x)}Ca_xMnO_3$, $La_{(1-x)}Ca_xMnO_3$, and $La_{(1-x-y)}Ca_xPb_yMnO_3$.

6. (Previously Presented) A nonvolatile variable resistor according to claim 5, wherein the manganese oxide is any of $Pr_{0.7}Ca_{0.3}MnO_3$, $La_{0.65}Ca_{0.35}MnO_3$ and $La_{0.65}Ca_{0.175}Pb_{0.175}MnO_3$.

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Previously Amended) A nonvolatile variable resistor according to claim 2, wherein the nonvolatile variable resistance body is made of a manganese oxide of a perovskite structure.

12. (Previously Presented) A nonvolatile variable resistor according to claim 11, wherein the manganese oxide is any of $Pr_{(1-x)}Ca_xMnO_3$, $La_{(1-x)}Ca_xMnO_3$, and $La_{(1-x-y)}Ca_xPb_yMnO_3$.

13. (Previously Presented) A nonvolatile variable resistor according to claim 12, wherein the manganese oxide is any of $Pr_{0.7}Ca_{0.3}MnO_3$, $La_{0.65}Ca_{0.35}MnO_3$ and $La_{0.65}Ca_{0.175}Pb_{0.175}MnO_3$.

14-26. (Canceled)

27. (Currently Amended) A nonvolatile variable resistor comprising:

a first electrode and a second electrode facing each other and formed on a substrate;

a semiconductor switching element formed in the substrate, the switching element being connected to the first electrode;

a nonvolatile variable resistance body formed between the first electrode and the second electrode, a composition of the nonvolatile variable resistance body being chosen to facilitate nonvolatility of the variable resistor;

wherein the first electrode having a first electrode major dimension and the second electrode having a second electrode major dimension, and wherein the first electrode major dimension and the second electrode major dimension extend in a direction perpendicular to a surface of the substrate and the first electrode major dimension and the second electrode major dimension face each other in a direction parallel to ~~a~~the surface of the substrate, wherein the nonvolatile variable resistance body is formed on an outer surface of the first electrode, and wherein the second electrode is formed on an outer surface of the nonvolatile variable resistance body.

28. (Cancelled)

29. (Previously Amended) A nonvolatile variable resistor according to claim 27, wherein the first electrode is columnar or prismatic.

30. (Currently Amended) A nonvolatile variable resistor comprising:

a first electrode and a second electrode facing each other and formed on a substrate; and

a nonvolatile variable resistance body, a read-out resistance value of which varies by applying a voltage pulse between the first electrode and the second electrode, formed between the first electrode and the second electrode, wherein

the first electrode having a first electrode major dimension and the second electrode having a second electrode major dimension, and wherein the first electrode major dimension and the second electrode major dimension extend in a direction perpendicular to a surface of the substrate and the first electrode major dimension and the second electrode major dimension face each other in a direction parallel to ~~a~~the surface of the substrate.

31. (Previously Presented) A nonvolatile variable resistor according to claim 30, wherein

the nonvolatile variable resistance body is made of a manganese oxide of a perovskite structure.

32. (Previously Amended) A nonvolatile variable resistor according to claim 31, wherein the manganese oxide is any of $Pr_{(1-x)}Ca_xMnO_3$, $La_{(1-x)}Ca_xMnO_3$, and $La_{(1-x-y)}Ca_xPb_yMnO_3$.

33. (Previously Amended)) A nonvolatile variable resistor according to claim 32, wherein the manganese oxide is any of $Pr_{0.7}Ca_{0.3}MnO_3$, $La_{0.65}Ca_{0.35}MnO_3$ and $La_{0.65}Ca_{0.175}Pb_{0.175}MnO_3$.

34. (Previously Amended) A nonvolatile variable resistor according to claim 30, wherein the second electrode is concentric about the first electrode.

35. (Currently Amended) A memory cell comprising:

a nonvolatile variable resistor; and

a selective device, connected to the nonvolatile variable resistor, for selecting variable resistor, wherein

the nonvolatile variable resistor comprising:

a first electrode and a second electrode facing each other and formed on a substrate; and

a nonvolatile variable resistance body, a resistance value of which varies reversibly by applying a voltage pulse between the first electrode and the second electrode, formed between the first electrode and the second electrode, and

the first electrode having a first electrode major dimension and the second electrode having a second electrode major dimension, and wherein the first electrode major dimension and the second electrode major dimension extend in a direction perpendicular to a surface of the substrate and the first electrode major dimension and the second electrode major dimension face each other in a direction parallel to ~~a~~the surface of the substrate.